

IN THE CLAIMS

This listing of the claim will replace all prior versions and listings of claim in the present application.

Listing of Claims

1. (currently amended) A database management method for addressing to a commit request or a rollback request in a stored program written in an interpreted language, said method comprising the steps of:

reserving a resource at execution of a query from the stored program of the interpreted language and keeping relational information between the reserved resource and registering information about said reserved resource in a resource managing table, which is corresponding to resources already reserved in the query processing in execution having invoked the program; and

referring, at release of a transaction from the stored program, to a release resource managing table and the resource managing table to determine a reserved resource which is registered in the resource managing table and which is not registered in the release resource managing table; and

releasing, at release of a transaction from the stored program, associated ones of resources according to the relational information kept in said reserving step the reserved resource having been determined by said referring step.

2. (currently amended) A database management method for use in a relational database system for addressing to a commit request or a rollback request

in a stored JAVA program ~~written in an interpreted language (JAVA)~~, said method comprising the steps of:

~~reserving a resource at execution of a query from the stored JAVA program of an interpreted language and keeping relational information between the reserved resource and registering information about said reserved resource in resource managing table, which is corresponding to resources already reserved in the query processing in execution having invoked the program; and~~

~~referring, at release of a transaction from the stored JAVA program, to a release resource managing table and the resource managing table to determine a reserved resource which is registered in the resource managing table and which is not registered in the release resource managing table; and~~

~~releasing, at release of a transaction from the stored program, associated ones of resources according to the relational information kept in said reserving step the reserved resource having been determined by said referring step.~~

3. (currently amended) A database management method for addressing to a commit request or a rollback request in a stored JAVA program, said method comprising the steps of:

~~analyzing a query request inputted from a terminal thereto and generating an execution module;~~

~~checkingreserving, when the stored JAVA program which is not contained in the execution module and which is beforehand stored in a database management system (DBMS) is invoked at execution of the execution module, unknown resources~~

to be used by the program, checking unknown resources to be used by the stored JAVA program, and determining resources to be set as resources unavailable to another program until a transaction is completed and resources to be set as unavailable resources until the program is terminated; and registering information about said reserved resource in a resource managing table, which is corresponding to resources already reserved in the query processing in execution having invoked the stored JAVA program;

referring, in response to an input of a transaction completion request or issuance of a commit statement from the stored JAVA program, to a release resource managing table and a resource managing table to determine a reserved resource which is registered in the resource managing table and which is not registered in the release resource managing table as the resources set as unavailable resources until the transaction is completed; and

~~releasing, in response to an input of a transaction completion request or issuance of a commit statement from the program, the resources set as unavailable resources until the transaction is completed in the stored program~~ the reserved resource having been determined by said referring step.

Claim 4 (canceled).

5. (currently amended) A database management apparatus for addressing to a commit request or a rollback request in a stored program written in a

~~heterogeneous language to a database language or an interpreted language,~~
comprising:

means for reserving a resource at execution of a query from a stored program of the interpreted language and ~~keeping relational information between the reserved resource and~~ registering information about said reserved resource in a resource managing table, which is corresponding to resources already reserved in the query processing in execution having invoked the program; and

means for referring, at release of a transaction from the stored program of the interpreted language, to a release resource managing table and the resource managing table to determine a reserved resource which is registered in the resource managing table and which is not registered in the release resource managing table;
and

means responsive to said reserving means for releasing, ~~at release of a transaction from the stored program, associated ones of resources according to the relational information kept in said reserving means~~ the reserved resource having been determined by said referring step.

6. (currently amended) A database management apparatus in a relational database system for addressing to a commit request or a rollback request in a stored program written in ~~a heterogeneous language to a database language or an interpreted language (JAVA)~~ JAVA, comprising:

means for reserving a resource at execution of a query from a stored JAVA program of ~~an interpreted language and keeping relational information between the~~

~~reserved resource and~~ registering information about said reserved resource in a resource managing table, which is corresponding to resources already reserved in the query processing in execution having invoked the program; and

means for referring, at release of a transaction from the stored JAVA program, to a release resource managing table and the resource managing table to determine a reserved resource which is registered in the resource managing table and which is not registered in the release resource managing table; and

~~means responsive to said reserving means for releasing, at release of a transaction from the stored program, associated ones of resources according to the relational information kept in said reserving means~~ the reserved resource having been determined by said referring step.

7. (currently amended) ~~A database management apparatus for addressing to a commit request or a rollback request in a stored JAVA program written in an interpreted language, said database management apparatus comprising:~~

~~means for analyzing a query request inputted from a terminal thereto and generating an execution module;~~

~~means for checking reserving, when a stored JAVA program which is not contained in said execution module and which is beforehand stored in a database management system (DBMS) is invoked at execution of said execution module, unknown resources to be used by the program, checking unknown resources to be used by the stored JAVA program and determining resources to be set as resources made unavailable to another program until a transaction is completed and resources~~

to be set as ~~resources unavailable~~ resources ~~to a third program~~ until the program is terminated; and registering information about said reserved resource in a resource managing table, which is corresponding to resources already reserved in the query processing in execution having invoked the stored JAVA program; and

means for referring, in response to an input of a transaction completion request or issuance of a commit statement from the stored JAVA program, to a release resource managing table and the resource managing table to determine a reserved resource which is registered in the resource managing table and which is not registered in the release resource managing table as the resources set as unavailable resources until the transaction is completed; and

means operable with said ~~checking~~ referring and determining means, for releasing, in response to an input of a transaction completion request or issuance of a commit statement from the program, the resources set as resources made unavailable until the transaction is completed in the program of a third person the reserved resource having been determined by said referring step.

Claim 8 (canceled).

9. (currently amended) A computer-executed ~~executable program, on a storage medium,~~ for implementing a database management method for addressing to a commit request or a rollback request in a stored program written in a heterogeneous language to a database language or an interpreted language, said method comprising when executed causes a computer to perform the steps of:

reserving a resource at execution of a query from a stored program of the interpreted language and ~~keeping relational information between the reserved resource and~~ registering information about said reserved resource in a resource managing table, which is corresponding to resources already reserved in the query processing in execution having invoked the program; and

referring, at release of a transaction from the stored program, to a release resource managing table and the resource managing table to determine a reserved resource which is registered in the resource managing table and which is not registered in the release resource managing table; and

~~releasing, at release of a transaction from the stored program, associated ones of resources according to the relational information kept in said reserving step~~ the reserved resource having been determined by said referring step.

10. (currently amended) ~~A computer-executed~~ executables program, on a storage medium, for implementing a database management method in a relational database system for addressing to a commit request or a rollback request in a stored ~~JAVA program written in an interpreted language (JAVA), said method comprising~~ when executed causes a computer to perform the steps of:

reserving a resource at execution of a query from a stored JAVA program of ~~an interpreted language and keeping relational information between the reserved resource and~~ registering information about said reserved resource in resource managing table, which is corresponding to resources already reserved in the query processing in execution having invoked the program; and

referring, at release of a transaction from the stored JAVA program, to a release resource managing table and the resource managing table to determine a reserved resource which is registered in the resource managing table and which is not registered in the release resource managing table; and

~~releasing, at release of a transaction from the stored program, associated ones of resources according to the relational information kept in said reserving step~~
the reserved resource having been determined by said referring step.